

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of

Ikuo MORITA, et al.

Atty. Docket No.: Q94143

Serial No.10/574,687

Group Art Unit: 1651

Filed: April 5, 2006

Examiner: Taeyoon KIM

For: METHOD OF CONSTRUCTING ARTIFICIAL CELL TISSUE AND BASE  
MATERIAL THEREOF

DECLARATION PURSUANT TO 37 C.F.R.1.132

1. I, Hideshi HATTORI, do hereby declare as follows:

I graduated from Kobe University in 1992 and received D. Eng. from Kobe University in 2001. Since 1992, I have been employed by Dai Nippon Printing Co., Ltd. I am currently working on research and development of bio-science products.

Given by education and experience, particularly in the area of surface chemistry and biomaterials, I consider myself able to provide the following testimony.

2. The method of Nelles et al requires transferring matrix in which cells are embedded, and the cells are damaged when removing the matrix adhesion from cells. Therefore, Nelles et al cannot provide the advantageous effect of the present invention, that is to arrange and culture cells in a fine pattern without damaging them.

Based on my knowledge in the field of cell culturing, I believe that degradation with enzyme, such as trypsin and collagenase is indispensable for collecting cells embedded in the matrix. There is no other way to remove the cells from the matrix. During the enzymatic degradation, it is unavoidable that proteins in cellular membranes or in cells are also degraded by the enzyme in the same manner as the matrix. Such degradation of cellular proteins leads to cell damages and put the cells at risk of death.

3. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: This 20<sup>th</sup> day of August, 2009

Hideshi Hattori

Hideshi HATTORI